

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A detector arrangement comprising:

at least one detector module having a plurality of individual detector elements, which detect radiation and generate signals indicative of the radiation, the at least one detector module comprising; and

an electrical unit comprising; having

an electro-optical transducer for processing the generated signals of the detector elements and for generating optical detector module output signals indicative of the generated signals; and

an opto-electrical transducer for processing detector module input signals and supplying the input signals to the detector elements.

2. (Previously presented) A detector arrangement as claimed in claim 1, in which the electrical unit comprises an analog-to-digital converter and a parallel-to-serial converter for generating a serial digital detector module output signal.

3. (Currently amended) A detector arrangement as claimed in claim 1, in which the electrical unit comprises an opto-electrical transducer with which detector module input signals are supplied to the detector elements a digital-to-analog converter and a serial-to-parallel converter for generating a parallel analog detector module input signal.

4. (Currently amended) A detector arrangement as claimed in claim [[3]] 1, in which the opto-electrical transducer comprises an LED diode.

5. (Previously presented) A detector arrangement as claimed in claim 1, having at least one optical fiber coupler with which the at least one detector module is optically coupled to an optical fiber cable.
6. (Previously presented) A detector arrangement as claimed in claim 1, in which the at least one detector module comprises a detector chip on which the detector elements are formed.
7. (Previously presented) A detector arrangement as claimed in claim 6, in which the electrical unit is integrated in the at least one detector chip.
8. (Previously presented) A detector arrangement as claimed in claim 1, in which the at least one detector module comprises a module carrier having an inner space for the electrical unit and having a cable duct for at least one optical fiber cable.
9. (Previously presented) A detector arrangement as claimed in claim 8, in which the at least one detector module is slidably guided between two guide rails, of which at least one rail is provided for connection of a terminal of a power supply to the detector module.
10. (Previously presented) A detector arrangement as claimed in claim 1, in which the detector module comprises a module connector for optical connection of the detector module to a further detector module arranged adjacent thereto or to an optical fiber interface that is provided for connection of the detector arrangement to a processing unit or central processing unit.
11. (Previously presented) A detector arrangement as claimed in claim 10, in which the optical fiber interface comprises a backplane in the form of a printed circuit board having a plurality of embedded optical fiber cables for optical connection of the detector arrangement to the processing unit or central processing unit.
12. (Previously presented) A computed tomograph apparatus having a gantry with a detector arrangement as claimed in claim 1.

13. (Previously presented) A computed tomograph apparatus as claimed in claim 12, in which the detector arrangement and a processing unit in the form of a central processing unit output signals to a stationary evaluating unit arranged on a rotatable part of the gantry, the detector arrangement being optically connected to the central processing unit through an optical fiber infrastructure.

14. (Cancelled)

15. (Previously presented) A detector arrangement as claimed in claim 1, wherein the electro-optical transducer is coupled to an optical fiber coupler for optical connection of the detector arrangement to a central processing unit, wherein the optical signals are indicative of the signals produced by the detector elements.

16. (Previously presented) A detector arrangement as claimed in claim 1, wherein the electro-optical transducer comprises a laser diode.

17. (Previously presented) A detector arrangement as claimed in claim 6, in which the at least one detector module comprises a CMOS chip on which the detector elements are formed.

18. (Previously presented) A computed tomograph apparatus as claimed in claim 13, wherein the detector arrangement and processing unit further form a buffer memory for wireless transmission, wherein the buffer memory outputs signals to the stationary evaluating unit arranged on the rotatable part of the gantry, the detector arrangement being optically connected to the buffer memory through an optical fiber interface.

19. (Currently amended) ~~A computed tomography apparatus as claimed in claim 16, wherein a laser diode is actuated to transmit detector module output signals to the fiber optic infrastructure and a laser transmitter is mounted directly on the rear side of the at least one detector module~~

facing the detector elements, wherein the at least one detector module comprises a CMOS chip A method comprising:

detecting radiation and generating electrical signals indicative thereof with one or more detector elements of a radiation sensitive detector module;

generating optical output signals indicative of the electrical signals using an electro-optical transducer of the radiation sensitive detector module; and

supplying input signals to an opto-electrical transducer of the radiation sensitive detector module for the detector elements of the radiation sensitive detector module.

20. (Currently amended) ~~A computed tomography apparatus as claimed in claim 13, wherein the optical fiber infrastructure picks up the output signals through at least one fixing point on the at least one detector module and relays the output signals to the central processing unit and the optical fiber infrastructure further transmits input signals from the central processing unit through the at least one fixing point to the at least one detector module~~ A detector module for an imaging system, comprising:

one or more detector elements;

an electro-optical transducer that generates optical output signals indicative of radiation detected by the one or more detector elements; and

an opto-electrical transducer that receives input signals and supplies said signals to at least one of the detector elements.

21. (New) The computed tomography method of claim 19, further comprising:

transmitting detector module output signals through at least one optical fiber coupler to an optical fiber cable; and

receiving detector module input signals from the optical fiber cable through the at least one optical fiber coupler.